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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,126	04/16/2004	Hisao Inokuma	250931US0CONT	7963

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EXAMINER
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BLACKWELL RUDASIL, GWENDOLYN A

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/825,126	INOKUMA ET AL.	
	Examiner	Art Unit	
	Gwendolyn Blackwell	1775	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-21 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/06</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The complete copy of the information disclosure statement originally filed on April 16, 2004, has been considered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-2, 5, and 7-21 have been considered but are moot in view of the new ground(s) of rejection. The indication of allowable subject matter in claim 6 has been withdrawn in light of the application of new prior art over the claims.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

4. Claims 1-2, 7-18, and 20-21 rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Application Publication no. 10-182190, JP '190.

*Regarding claims 1, 13, 15, 18, 20, and 21*

JP '190 disclose a low reflectance black electroconductive (low reflectance conductive film) film. The film is comprised of two layers wherein the lower layer (conductive film) is comprised of an electroconductive powder (conductive fine particles) and the upper layer (lower refraction film) is comprised of layer having a lower refractive index than the lower layer,

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(abstract). Titanium oxide (resistance lowering compound) can be present in the lower layer in an amount ranging from 0.1-5 wt% of the total metal powder and black powder, (page 5, section 0038). The coating solution used to form the coating is comprised of the powder, a silicon compound, and a solvent, (page 4, section 0031), meeting the limitations of claims 1, 6, 13, 15, and 18.

The irradiation of the film is a process limitations that does not provide a patentable distinction over the prior art of record, meeting the limitations of claims 20, and 21.

*Regarding claims 2, 7-12, 14, and 16-17*

Indium tin oxide and antimony tin oxide are used in the lower layer, (page 4, section 0024), meeting the limitations of claim 2.

The lower layer is colored with titanium oxide, which provides a black color, (page 4, section 0026), meeting the limitations of claims 8-9.

The lower layer has a thickness of preferably less than 180 nm, (page 6, sections 0044-0045). The upper layer has a thickness of 20-150 nm, (page 7 section 0047), meeting the limitations of claims 7 and 10.

The electroconductive film is placed on the front surface (external) of a cathode ray tube front panel, (abstract), claims 11-12.

Table 1 demonstrates a liquid coating composition comprised of 0.7-3.2 titanium oxide, (page 9, section 0066), meeting the limitations of claim 14.

Alkoxysilanes (silicon alkoxide) are used for the silica source in an amount of 15 wt% or less, (page 4, section 0029), meeting the limitations of claims 16-17.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application Publication no. 10-182190, JP '190 as applied to claim 18 above, and further in view of United States Patent Application Publication no. 2002/0145377, Nishizawa et al.

The limitations of claim 18 are set forth above. JP '190 does not specifically teach forming a colored film prior to the coating of the conductive film.

Nishizawa et al disclose a cathode ray tube with a film formed on the outer surface of the panel, wherein the film is comprised of a light transmission control layer (conductive film) and a low refractive index layer (low-refraction film) that has a lower refractive index than the light transmission control layer. The light transmission control layer is comprised of particles such as

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silver, aluminum or silver sulfide (materials which are conductive), (page 1, sections 0011-0013 and page 3, section 0042). A colored phosphor layer is formed on the inner surface of the panel, (page 8, sections 104).

JP '190 and Nishizawa et al disclose analogous inventions related to the coatings used on cathode ray tubes. It would have been obvious to one skilled in the art at the time of invention to modify the cathode ray tube of JP '190 by forming a colored film on the inner surface of the tube in order to manufacture a colored cathode ray tube.

#### ***Allowable Subject Matter***

8. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The closest prior art of record while teaching a bi-layered low reflectance conductive film does not teach or suggest that the conductive portion of the film should have a resistance lowering sulfur compound as exemplified by Applicant.


#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn Blackwell whose telephone number is (571) 272-1533. The examiner can normally be reached on Monday - Thursday; 6:30 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Gwendolyn Blackwell  
Examiner  
Art Unit 1775

gab